

feline (from cDNA)	<u>YEIAPVFVLM</u> EQITLKKMREIVGWSSKDGDFSPGGAISNMYSIMAAARYKFFPEVKT <u>KG</u>	↓
rat (from peptide)	<u>YEIAPVFVLL</u> EYV-----REIIGWPGGS-DGIFSPGGAISN-YAMLIARYKMFFPEVKE <u>KG</u>	

Figure 1

GGGCGTGGGGTTCGAGCCGAAGCAGCTTGCCCGCAGCCACTCGGAGGCGACCGGCCA  
10 30 50  
M A S P G S G F W S F G S E D G  
GACTAGCAGAAACCCATGGCATCTCCGGGCTCTGGCTTTTGGTCCCTTCGGATCTGAAGATG  
70 90 110  
S G D P E N P G T A R A W C Q V A Q K F  
GCTCTGGGATCCTGAGAACCCGGGAACAGCGAGAGCCTGGTGCCAGGTGGCCCAAAAGT  
130 150 170  
T G G I G N K L C A L L Y G D S E K P A  
TCACGGCGGCATCGGAACAAGCTATGCGCTCTGCTCTACGGAGACTCTGAGAAGCCAG  
190 210 230  
E S G G S V T S R A A T R K V A C T C D  
CAGAGCGGCGGAGCGTGACCTCGCGGGCCGCCACTCGGAAGTCCGCTGCACCTGTG  
250 270 290  
Q K P C S C P K G D V N Y A L L H A T D  
ACCAAAACCCCTGCAGCTGCCCCAAAGGAGATGTCAATTATGCACCTTCTCCACGCAACAG  
310 330 350  
L L P A C E G E R P T L A F L Q D V M N  
ACCTGCTGCCAGCCTGTGAAGGAGAAAGGCCCACTCTCGCATTTCTGCAAGATGTAATGA  
370 390 410  
I L L Q Y V V K S F D R S T K V I D F H  
ACATTTTGCTTCAGTACGTGGTGAAAAGTTTGATAGATCAACTAAAGTGATTGATTCC  
430 450 470  
Y P N E L L Q E Y N W E L A D Q P Q N L  
ATTACCCCAATGAGCTTCTTCAAGAGATATAATTGGGAATTGGCAGACCAACCGCAAAATC  
490 510 530  
E E I L T H C Q T T L K Y A I K T G H P

Figure 2A

TGGAGGAAATTTTGACGCACTGCCAAACAACTCTAAATAATATGCGATTAAAAACAGGGCATC  
550 570 590  
R Y F N Q L S T G L D M V G L A A D W L  
CCCGATATTTTAATCAGCTGTCTACCGGATTGGATATGGTTGGATTAGCAGCAGATTGGT  
610 630 650  
T S T A N T N M F T Y E I A P V F V L L  
TGACATCAACAGCAAAACACGAACATGTTTACCTATGAGATCGCCCTGTATTGTACTAC  
670 690 710  
E Y V T L K K M R E I I G W P G G S G D  
TGGAATATGTGACACTAAAGAAAATGAGGAAAATCATTTGGCTGGCCAGGAGGCTCTGGCG  
730 750 770  
G I F S P G G A I S N M Y A M L I A R Y  
ATGGAATCTTTTCTCCTGGTGGTGCCATCTCCAACATGTACGCCATGCTCATTTGCCCGCT  
790 810 830  
K M F P E V K E K G M A A V P R L I A F  
ATAAGATGTTTCCAGAAGTCAAGGAAAAGGGGATGGCGGCTGCCAGGCTCATCGCAT  
850 870 890  
T S E H S H F S L K K G A A A L G I G T  
TCACGTCAGAGCATAGTCACCTTTTCTCTCAAGAAGGAGCTGCAGCCTTGGGGATCGGAA  
910 930 950  
D S V I L I K C D E R G K M I P S D L E  
CAGACAGCGTGATTCTGATTAAATGTGATGAGAGAGGGAATAATGATCCCATCTGACCTTG  
970 990 1010  
R R I L E V K Q K G F V P F L V S A T A  
AAAGAAGAATCCTTGAAGTCAAAACAGAAAGGATTGTTCCTTTCTTGGTGAGTGCCACAG  
1030 1050 1070  
G T T V Y G A F D P L L A V A D I C K K

Figure 2B

CTGGAACCACTGTGTACGGGGCTTTTGGATCCTCTCTTGGCTGTAGCTGACATCTGCAAAA  
1090 1110 1130  
Y K I W M H V D A A W G G G L L M S R K  
AATAAAGATCTGGATGCAATGTGGATGCTGCTTGGGGTGGAGGGTTACTGATGTCCTCGGA  
1150 1170 1190  
H K W K L N G V E R A N S V T W N P H K  
AACACAAGTGGAAAGCTGAACGGTGTGGAGAGGGCCAACTCTGTGACATGGAATCCCCACA  
1210 1230 1250  
M M G V P L Q C S A L L V R E E G L M Q  
AGATGATGGGTGTCCTTGTCAATGTTTCGGCTCTCCTGGTCAGAGAGGAGGACTGATGC  
1270 1290 1310  
S C N Q M H A S Y L F Q Q D K H Y D L S  
AGAGTGCAACCAGATGCTTCCCTACCTCTTTCAGCAAGATAAGCACTATGACCTGT  
1330 1350 1370  
Y D T G D K A L Q C G R H V D V F K L W  
CCTATGACACGGGAGACAAGGCCTTGCAGTGTGGACGCCACGTCGATGCTTTAAATTAT  
1390 1410 1430  
L M W R A K G T T G F E A H I D K C L E  
GGCTCATGTGGAGAGCAAAGGGACTACTGATTTGAAGCTCACATTGATAAGTGTTTGG  
1450 1470 1490  
L A E Y L Y N I I K N R E G Y E M V F D  
AGTGGCAGAGTATTTATACAATATCATTAATAAACCGAGAGGATATGAAATGGTGTTCG  
1510 1530 1550  
G K P Q H T N V C F W F V P P S L R V L  
ATGGGAAGCCTCAGCACACAAATGTCTGCTTCTGGTTTGACCTCCTAGTTTGGAGTTC  
1570 1590 1610  
E D N E E R M S R L S K V A P V I K A R

Figure 2C

TGGAAGACAAATGAAGAGAGAGAAATGAGCCGCCCTCTCTCAAAGGTGGCGCCAGTGATTAAAGCCA  
163016501670  
M M E Y G T T M V S Y Q P L G D K V N F  
GAATGATGGAGTATGGGACCACAAATGGTCAGCTACCAACCCCTTAGGAGATAAGGTCAACT  
169017101730  
F R M V I S N P A A T H Q D I D F L I E  
TC TTC CGCATGGTCATCTCAAACCCCTGCAGCAACTCACCAAGACATTGACTTCCTCATTTG  
175017701790  
E I E R L G Q D L \*  
AAGAAATCGAACGCCCTGGGACAAAGATTTGTAATCACCTTTGCTCACCCAAACTTTCAGTTCT  
181018301850  
CTAGGTAGACAGCTAAGTTGTCACAAACCTGTGTAATGTATTTGTAGTTTGTTCAGAGT  
187018901910  
AATTCTATTTCTATATCGTGGTGTACAGTAGAGTCCAGTTTAAAA  
19301950

Figure 2D

AGCTCGCCCGCAGCTCGCACTCGCAGGGACCTGTCTCCAGTCTCCAAGCCGATGGCATC  
10 30 50 M A S  
P G S G F W S F G S E D G S G D S E N P  
TCCGGGCTCTGGCTTTTGGTCTTTTCGGGTCGGAAGATGGCTCTGGGATTCCGAGAAATCC  
70 90 110  
G T A R A W C Q V A Q K F T G G I G N K  
CGGCACAGCGGAGCCTGGTGCCCAAGTGGCTCAGAAAGTTACGGGGCGCATCGGAAACAA  
130 150 170  
L C A L L Y G D A E K P A E S G G S Q P  
ACTGTGCGCCCTGCTCTACGGAGACGCCGAGAGCCGGAGAGCGGGAGGCCAACCC  
190 210 230  
P R A A A R K A A C A C D Q K P C S C S  
CCCGCGGCGCCCGCCGGAAGCCGCTGCGCTGCGACCAAGAGCCCTGCAGCTGCTC  
250 270 290  
K V D V N Y A F L H A T D L L P A C D G  
CAAAGTGATGTCAACTACGCGTTTCTCCATGCAACAGACCTGCTGCCGCGTGTGATGG  
310 330 350  
E R P T L A F L Q D V M N I L L Q Y V V  
AGAAAGGCCCACTTTGGCGTTTCTGCAAGATGTTATGAACATTTTACTTCAGTATGTGGT  
370 390 410  
K S F D R S T K V I D F H Y P N E L L Q  
GAAAAGTTTCGATAGATCAACCAAGTGATGATTTCCATTATCCTAATGAGCTTCTCCA  
430 450 470  
E Y N W E L A D Q Q P Q N L E E I L M H C  
AGAATATAATTGGGAATTGGCAGACCAACCAAAAATTTGGAGGAAATTTTGATGCATTG

Figure 3A

490 510 530  
Q T L K Y A I K T G H P R Y F N Q L S  
CCAAACAACCTCTAAATATGCAATTAAACAGGGCATCCTAGATACTTCAATCAACTTTC  
550 570 590  
T G L D M V G L A A D W L T S T A N T N  
TACTGTTTGGATATGTTGGATTAGCAGCAGACTGGCTGACATCAACAGCAAATACTAA  
610 630 650  
M F T Y E I A P V F V L L E Y V T L K K  
CATGTTACCTATGAAATTGCTCCAGTATTGTGCTTTTGGAAATATGTCACACTAAAGAA  
670 690 710  
M R E I I G W P G G S G D G I F S P G G  
AATGAGAGAAATCATTTGGCTGGCCAGGGGCTCTGGCGATGGGATATTTTCTCCCGGTGG  
730 750 770  
A I S N M Y A M M I A R F K M F P E V K  
CGCCATATCTAACATGTATGCCATGATGATCGCACGCTTTAAAGATGTTCCAGAAAGTCAA  
790 810 830  
E K G M A A L P R L I A F T S E H S H F  
GGAGAAAGGAATGGCTGCTCTTCCCAGGCTCATTTGCCCTTCACGCTCTGAACATAGTCATT  
850 870 890  
S L K K G A A A L G I G T D S V I L I K  
TTCTCTCAAGAGGAGCTGCAGCCTTAGGGATTGGAACACAGACGCGTGATTCTGATTAA  
910 930 950  
C D E R G K M I P S D L E R R I L E A K  
ATGTGATGAGAGAGGAAATGATTCCATCTGATCTTGAAGAAGGATTCTTGAAGCCAA  
970 990 1010  
Q K G F V P F L V S A T A G T T V Y G A

Figure 3B

ACAGAAAGGTTTGTTCCTTTCCTCGTGAGTGCCACAGCTGGAACCAACCGTGACGGAGC  
1030 1050 1070  
F D P L L A V A D I C K K Y K I W M H V  
ATTTGACCCCTCTTAGCTGCTGCTGACATTTGCAAAAAGTATAAGATCTGGATGTCATGT  
1090 1110 1130  
D A A W G G G L L M S R K H K W K L S G  
GGATGCAGCTTGGGTGGGGATTACTGATGTCCCGAAAAACACAAGTGGAAACTGAGTGG  
1150 1170 1190  
V E R A N S V T W N P H K M M G V P L Q  
CGTGAGAGGGCCAACTCTGTGACGTGGAATCCACACAAGATGATGGAGTCCCTTTGCA  
1210 1230 1250  
C S A L L V R E E G L M Q N C N Q M H A  
GTGCTCTGCTCTCTGTAGAGAAGAGGATTGATGCAGAATTGCAACCAATGCATGC  
1270 1290 1310  
S Y L F Q Q D K H Y D L S Y D T G D K A  
CTCCTACCTCTTTCAGCAAGATAAACATTATGACCTGTCTATGACACTGGAGACAAGGC  
1330 1350 1370  
L Q C G R H V D V F K L W L M W R A K G  
CTTACAGTGGGACGCCACGTTGATGTTTTTAAACTATGGCTGATGTGGAGGGCAAAGGG  
1390 1410 1430  
T T G F E A H V D K C L E L A E Y L Y N  
GACTACCGGGTTTGAAGCGCATGTTGATAAATGTTTGGAGTTGGCAGAGTATTTATACAA  
1450 1470 1490  
I I K N R E G Y E M V F D G K P Q H T N  
CATCATAAAAACCGAAGGATATGAGATGGTGTGTTGATGGGAAGCCTCAGCACACAAA  
1510 1530 1550

Figure 3C



V C F W Y I P P S L R T L E D N E E R M  
TGTCGTCTTCTGGTACATTCTCCTCAAGCTTGGTACTCTGGAAGACAATGAAGAGAGAAT  
1570 1590 1610  
S R L S K V A P V I K A R M M E Y G T T  
GAGTCGCCCTCTCGAAGGTGGCTCCAGTGATTAAAGCCAGAAATGATGGAGTATGGAACCCAC  
1630 1650 1670  
M V S Y Q P L G D K V N F F R M V I S N  
AATGGTCAGCTACCAACCCCTTGGGAGACAAAGGTCAATTCTTCCGCATGGTCATCTCAAA  
1690 1710 1730  
P A A T H Q D I D F L I E E I E R L G Q  
CCCAGCGGCAACTCACCACAGACATTGACTTCCTTGATTGAAGAAATAGAACGCCCTTGGACA  
1750 1770 1790  
D L \*  
AGATTTATAAACCTTGCTCACCACCAAGCTGTTCCTTCTCTAGGTAGACAAATTAAGTTG  
1810 1830 1850  
TCACAAACTGTGTGAATGTATTTGTAGTTTGTTCCTCCAAAGTAAATCTATTTCTATATTGTG  
1870 1890 1910  
GTGTCAAAGTAGAGTTTAAAAATTAAACAAAAAAGACATTGCTCCTTTTAAAAAGTCCTTT  
1930 1950 1970  
CTTAAGTTTAGAAATACCTCTCTAAGAATTTCGTGACAAAAGGCTATGTTCTAATCAATAAG  
1990 2010 2030  
GAAAAGCTTAAAAATTGTTATAAAATACTTCCCTTACTTTTAATATAGTGTGCAAGCAAAC  
2050 2070 2090

Figure 3D

GAP WEIGHT: 3.000    LENGTH WEIGHT: 0.100    QUALITY: 856.2    RATIO: 1.464  
PERCENT SIMILARITY: 97.436    PEP HGT2.PEP AVERAGE MATCH: 0.540  
AVERAGE MISMATCH: -0.396    LENGTH: 585    GAPS: 0    PERCENT IDENTITY: 96.068  
AUGUST 22, 1990 08:20 \*\*

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1  MASPGSGFWSFGSEDDGSDPENPGTARAWCQVAQKFTGGIGNKLCALLYG 50
  |||||
1  MASPGSGFWSFGSEDDGSDSENPGTARAWCQVAQKFTGGIGNKLCALLYG 50

51 DSEKPAESGGSVTSRAATRKVACTCDQKPCSPKGDVNYALLHATDLLPA 100
  |.|||||..|||||.|||||.|||||.|||||.|||||.|||||:|||||
51 DAEKPAESGGSQPPRAARKAACACDQKPCSCSKVDVNYAFLHATDLLPA 100

101 CEGERTLAFLQDVMNILLQYVVKSFDRSTKVIDFHYPNELLQEYNWELA 150
  |:|||||
101 CDGERPTLAFLQDVMNILLQYVVKSFDRSTKVIDFHYPNELLQEYNWELA 150

151 DQPQNLEEILTHCQTTLKYAIKTGHPRYFNQLSTGLDMVGLAADWLTSTA 200
  |||||
151 DQPQNLEEILMHCQTTLKYAIKTGHPRYFNQLSTGLDMVGLAADWLTSTA 200

201 NTNMFYIEIAPVFLLEYVTLKKMREIIGWPGSGDGIFSPGGAISNMYA 250
  |||||
201 NTNMFYIEIAPVFLLEYVTLKKMREIIGWPGSGDGIFSPGGAISNMYA 250

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# Figure 4A

## Figure 4B

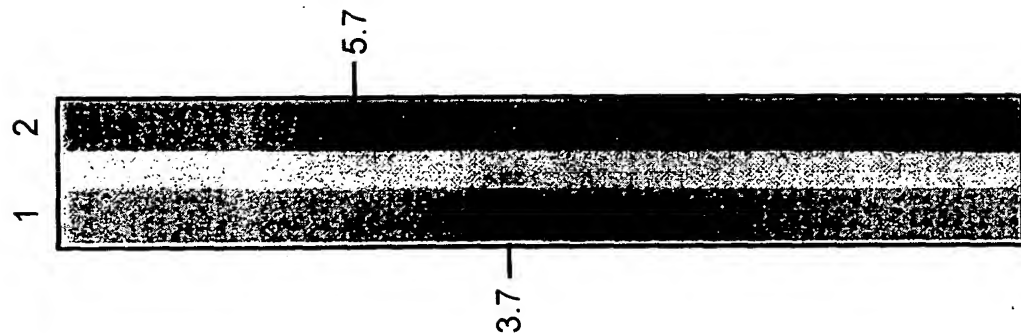


Figure 5

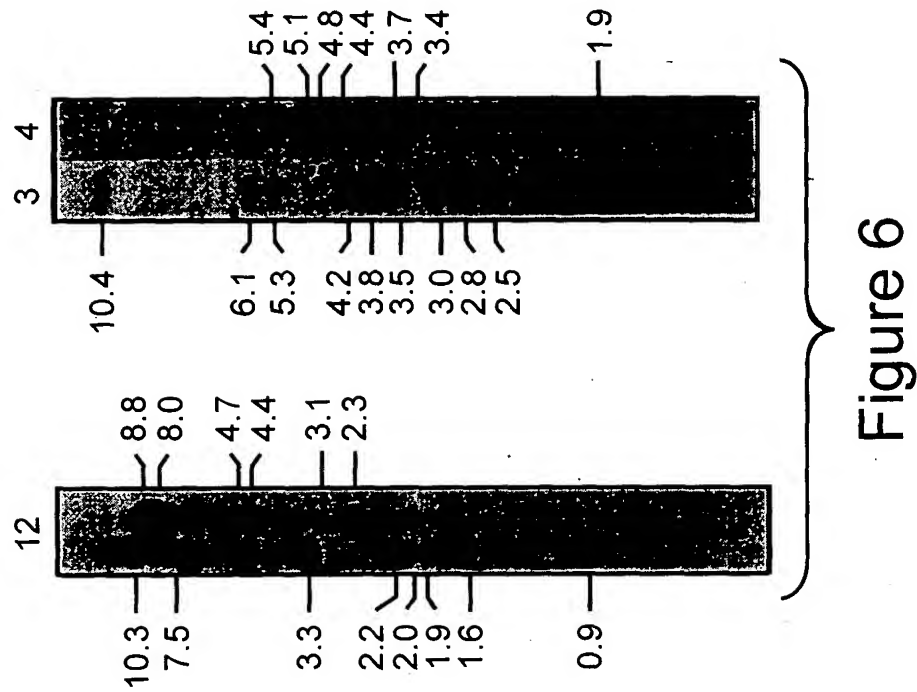


Figure 6

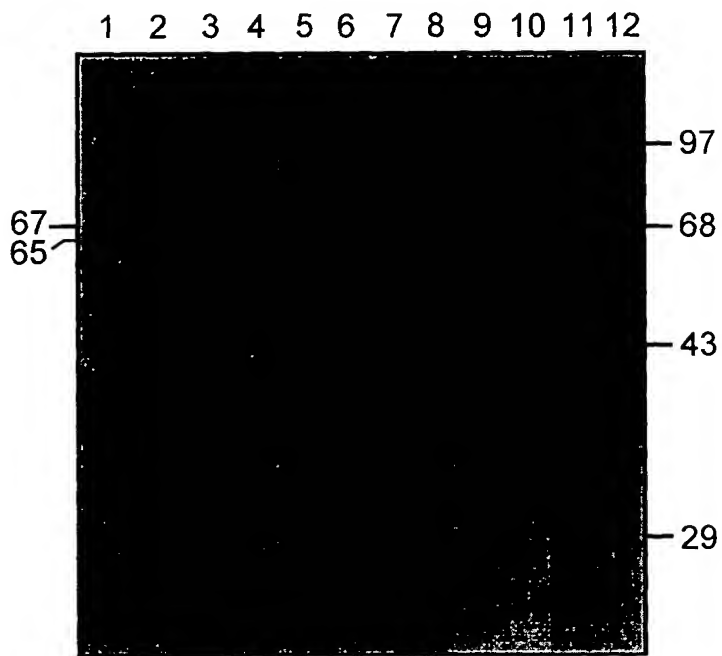


Figure 7